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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO |
|--|-----------------|----------------------|-------------------------------|-----------------|
| 10/611,594 | 06/30/2003 | David R. Johnson | T-6248 | 2507 |
| | 7590 09/30/2004 | | EXAMINER | |
| CHEVRON TEXACO CORPORATION P.O. BOX 6006 | | | NGUYEN, TAM M | |
| SAN RAMON, CA 94583-0806 | | | ART UNIT | PAPER NUMBER |
| | | | 1764 DATE MAILED: 09/30/2004 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

| | | Application No. | Applicant(s) | | | | |
|---|--|--|---|--|--|--|--|
| Office Action Summary | | | | | | | |
| | | 10/611,594 | JOHNSON ET AL. | | | | |
| | | Examiner | Art Unit | | | | |
| | The MAILING DATE of the | Tam M. Nguyen | 1764 | | | | |
| Period fo | The MAILING DATE of this communication app or Reply | ears on the cover sheet with the c | orrespondence address | | | | |
| THE - Exte after - If the - If NC - Failu Any | ORTENED STATUTORY PERIOD FOR REPLY MAILING DATE OF THIS COMMUNICATION. nasions of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. Period for reply specified above is less than thirty (30) days, a reply period for reply is specified above, the maximum statutory period we to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b). | 6(a). In no event, however, may a reply be tim within the statutory minimum of thirty (30) day; ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONF | nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. & 133) | | | | |
| Status | | | | | | | |
| 1)⊠ | Responsive to communication(s) filed on <u>30 June 2003.</u> | | | | | | |
| 2a) <u></u> □ | This action is FINAL . 2b)⊠ This action is non-final. | | | | | | |
| 3) | 2 The approximation of the mental of the men | | | | | | |
| | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Dispositi | on of Claims | | | | | | |
| 4) | 4)⊠ Claim(s) <u>1-29</u> is/are pending in the application. | | | | | | |
| | 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | | |
| 6)⊠ | Claim(s) <u>1-29</u> is/are rejected. | | | | | | |
| |) ☐ Claim(s) is/are objected to. | | | | | | |
| 8)[_ | Claim(s) are subject to restriction and/or | election requirement. | | | | | |
| Applicati | on Papers | | | | | | |
| 9) 🗌 . | The specification is objected to by the Examiner. | | | | | | |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. | | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | | |
| 11) 🔲 🤈 | Γhe oath or declaration is objected to by the Exa | miner. Note the attached Office | Action or form PTO-152. | | | | |
| | nder 35 U.S.C. § 119 | | | | | | |
| | • | oriority and a SELLOO SAACA | (1) (0) | | | | |
| | 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: | | | | | | |
| ,- | 1. Certified copies of the priority documents have been received. | | | | | | |
| | 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| | 3. Copies of the certified copies of the priority documents have been received in this National Stage | | | | | | |
| | application from the International Bureau (PCT Rule 17.2(a)). | | | | | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | | | | | | |
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| Attachment(| • | ,, — | | | | | |
| Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) A) Interview Summary (PTO-413) Paper No(s)/Mail Date | | | | | | | |
|) 🛛 Inform | ation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) No(s)/Mail Date 6/30/03. | 5) 🔲 Notice of Informal Pa | | | | | |
| Patent and Tra | | 6) Other: | | | | | |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gosselink et al. (5,371,308) in view of Hope et al. (6,395,948)

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Gosselink discloses a process for preparing olefins from a hydrocarbon feed derived from a Fischer Tropsch process. A product stream from a Fischer Tropsch process is first contacted with a non-acidic catalyst comprising molybdenum and nickel in a hydrotreating zone at a temperature of from $100-300^{\circ}$ C ($212-572^{\circ}$ F), at a hydrogen partial pressure of from 5 to 150 bars (72 – 2175 psig) and at LHSV of from 0.1 to 5 to remove oxygenates from the product stream. The treated stream is then passed into a thermal cracking zone to produce an olefinic feedstock. The thermal cracking zone is operated at a temperature of from 500 to 1200° C (932 – 2192° C) and at a pressure of from 0.1 to 15 bars. Gosselink also suggests that the olefinic feedstock can be utilized in an oligomerization process. It is noted that Gosselink does not specifically disclose that the hydrotreated stream contains less than 200 or 100 ppmw elemental oxygen. However, the feedstock and hydrotreating step of Gosselink are essentially the same as the claimed feedstock and the claimed hydrotreating step. It would be expected that the hydrotreated stream of Gosselink would contain less than 100 or 200 ppmw elemental oxygen as claimed. Gosselink also does not disclose that the thermal cracking zone is greater than about 10 wt.% of the paraffins present. However, the process of Gosselink is similar to the claimed process in terms of feedstock and operation conditions. Therefore, it would be expected that the thermal cracking zone would have the claimed conversion. (See col. 2, line 9 through col. 4, line 6)

Gosselink does not disclose that a lewis acid ionic liquid catalyst is employed in the oligomerization process.

Hope discloses an oligomerization process wherein a lewis acid ionic liquid catalyst is used. The catalyst comprises (1) aluminum halide and (2) quaternary ammonium or substituted

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ammonium halide wherein the ratio of (1)/(2) is about 1:1 to 2:1. (See col. 1, line 56 though col. 2, line 31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Gosselink by using the catalyst of Hope because the catalyst of Hope is effective to produce a valuable polyolefins.

Claims 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over references as applied to claim 1 above, and further in view of Anthes et al. (5,000,840).

Gosselink does not disclose the dewaxing step.

Anthes discloses a catalytic dewaxing process wherein the oligomerization product is passed into dewaxing zone to produce lubricant base oil. (See col. 2, line 44 through col. 3, line 30)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Gosselink by passing the oligomerization product to a dewaxing process as taught by Anthes because such process would improve the viscosity, pour point and cloud point of the oligomerized product.

Gosselink does not disclose that F-T derived product includes a diesel product. However, the product of Gosselink/Anthes is similar to the claimed product. It would be expected that the Gosselink/Anthes product would include a diesel product as claimed.

Claims 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over references as applied to claims 1-22 above, and further in view of Elomari (6,632,416).

Gosselink does not disclose a hydrofinishing step.

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Elomari discloses a step of hydrofinishing to stabilize a dewaxed product. (See col. 12, lines 1-6)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Gosselink by hydrofinishing the dewaxed product as taught by Elomari because the step would produce a more stable dewaxed product.

Gosselink does not disclose a diesel product is also collected from the hydrofinishing zone. However, the product of Gosselink/Anthes/Elomari is similar to the claimed product. It would be expected that the Gosselink/Anthes/Elomari product would include a diesel product as claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam M. Nguyen whose telephone number is (571) 272-1452. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tam M. Nguyen Examiner Art Unit 1764

TN

Walter D. Griffin Primary Examiner